

**QT-Brightek Chip LED Series**

**0603 IR LED**

**Part No.: QBLP601-IR2**

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	Version# 1.0	

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## Introduction

**Feature:**

- Water clear lens
- Package in tape and reel
- 0603 LED package
- AlGaAs technology for IR
- Viewing Angle = 120 deg

**Description:**

These ultra bright 0603 LEDs have a height profile of 0.60mm. With higher packing density and smaller footprint, these LEDs are ideal for smaller equipment and miniature application.

**Application:**

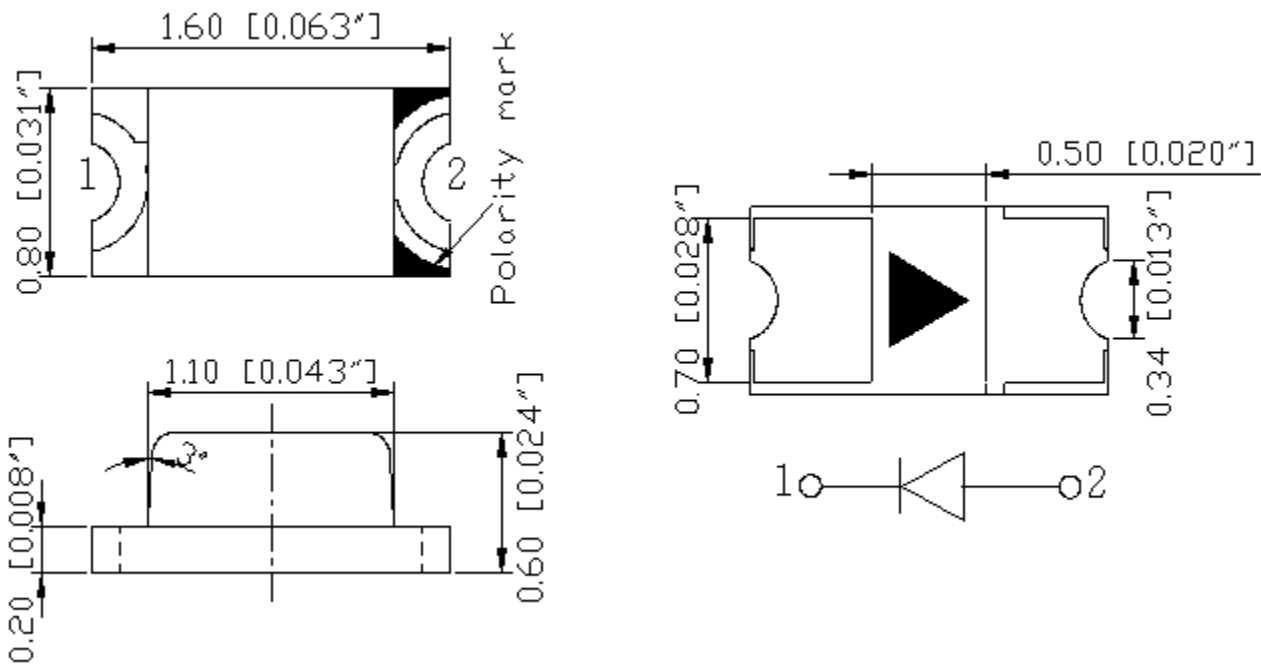
- Infrared Sensor
- Optoelectronic Switch
- Smoke detector
- Drive sensor

**Certification & Compliance:**

- TS16949
- ISO9001
- RoHS Compliant



**Dimension:**



Units: mm / tolerance = +/-0.1mm

**Electrical / Optical Characteristic (T=25 °C)**

Product	Color	I <sub>F</sub> (mA)	V <sub>F</sub> (V)		λ <sub>P</sub> (nm)			I <sub>e</sub> (mW/sr)	
			Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.
QBLP601-IR2	Infrared	20	1.3	1.8	--	880	--	--	0.5

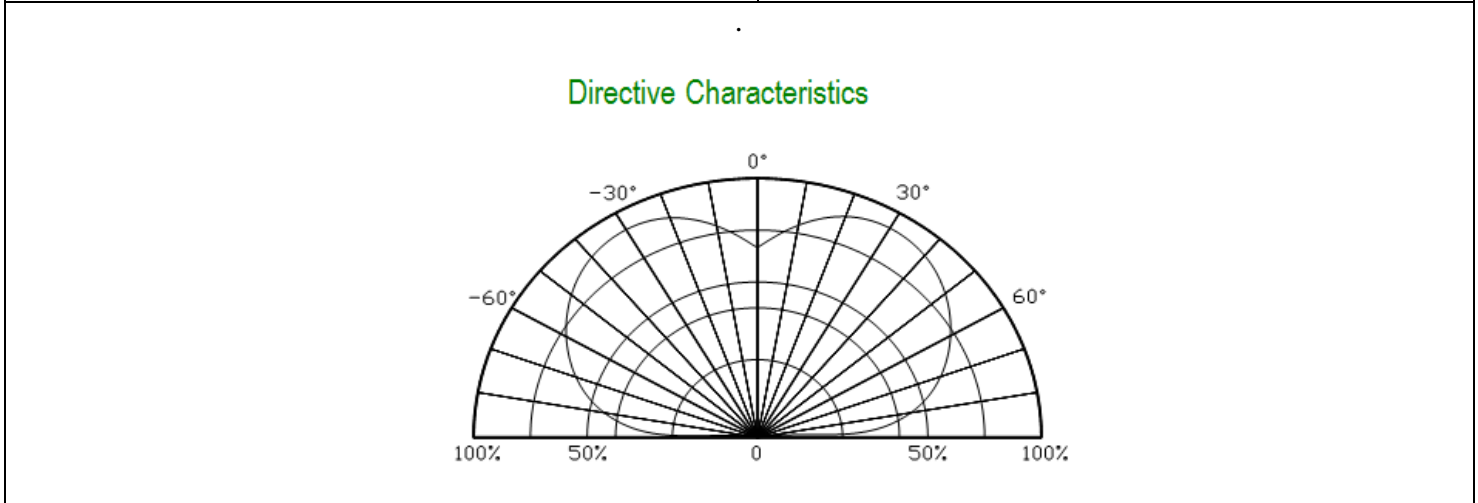
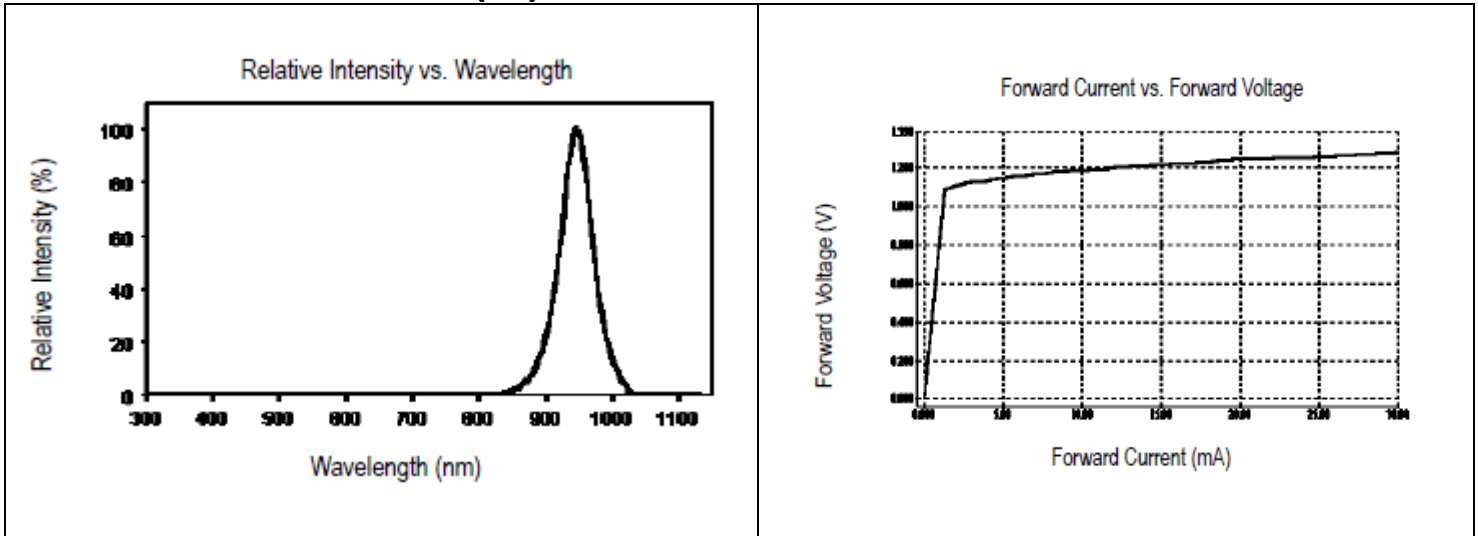
**Absolute Maximum Rating**

Material	P <sub>d</sub> (mW)	I <sub>F</sub> (mA)	I <sub>FP</sub> (A)*	V <sub>R</sub> (V)	T <sub>OP</sub> (°C)	T <sub>ST</sub> (°C)	T <sub>SOL</sub> (°C)**
AlGaAs	85	50	1	5	-40 ~ +85	-40 ~ +100	260

\*Duty cycle=1%, Pulse width 100us

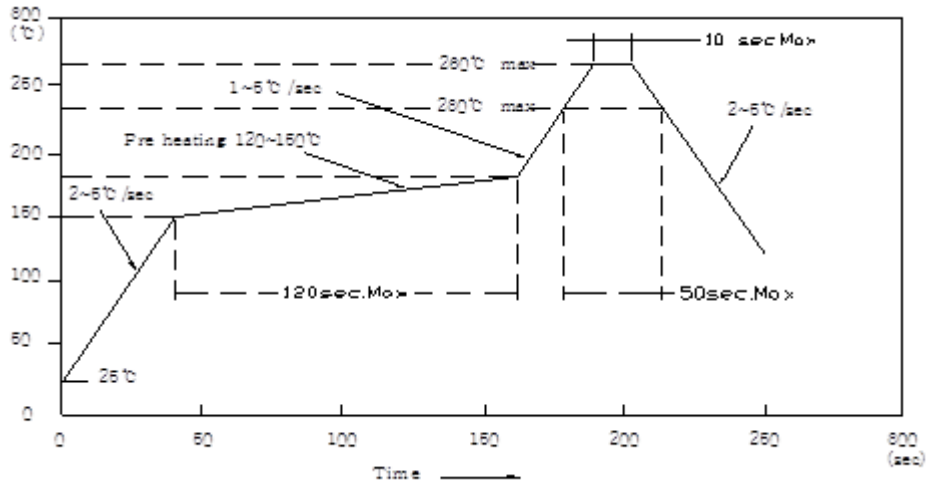
\*\* IR Reflow for no more than 10 sec @ 260 °C

### Characteristic Curves (IR)

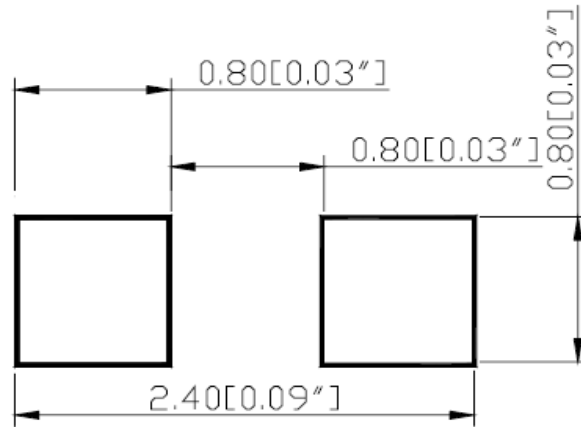


## Solder Profile & Footprint

- Recommended tin glue specifications: melting temperature in the range of 178~192 °C
- The recommended reflow soldering profile is as follows (temperatures indicated are as measured on the surface of the LED resin):



### RECOMMEND PAD LAYOUT



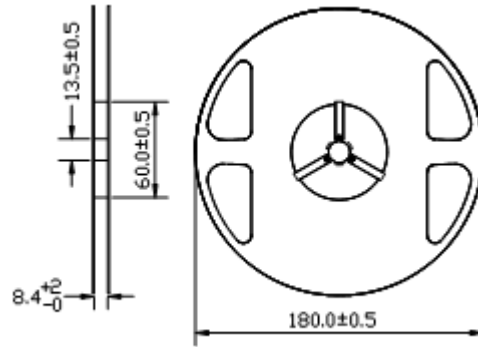
( Proposed Solder footprint )

Units: mm

tolerance: +/- 0.1mm

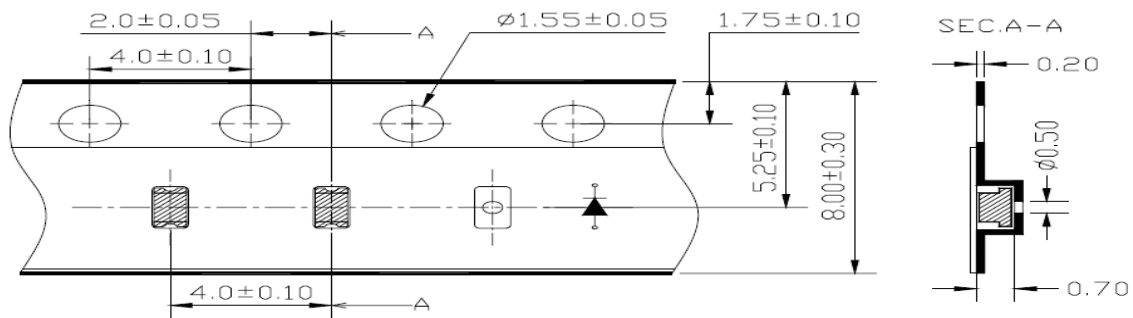
## Packing

### Reel Dimension:



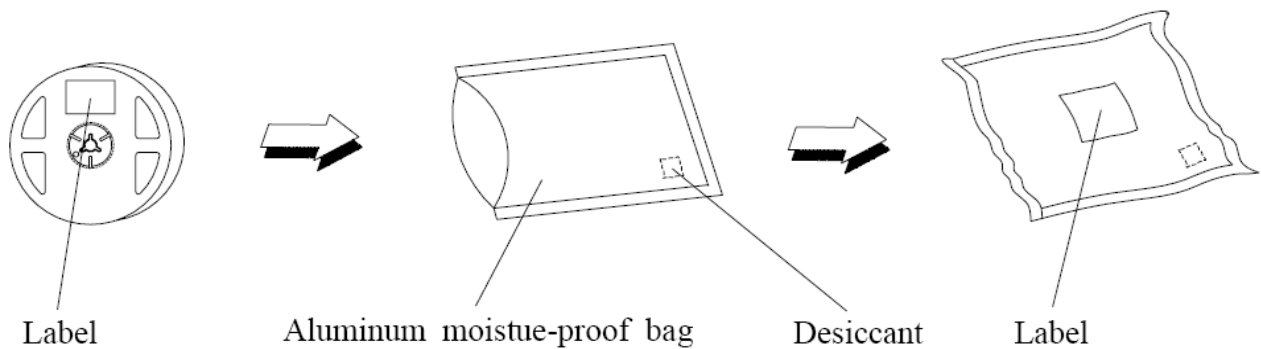
Unit: mm

### Tape Dimension:



Unit: mm

### Packaging Specification:



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**Labeling**

Part No: \_\_\_\_\_

Customer P/N: \_\_\_\_\_

Item: \_\_\_\_\_

Q'ty: \_\_\_\_\_

Vf: \_\_\_\_\_

Iv: \_\_\_\_\_

WI: \_\_\_\_\_

Date: \_\_\_\_\_

**Made in China****Ordering Information**

Part #	Orderable Part #	Spec Range	Quantity per reel
QBLP601-IR2	QBLP601-IR2	$I_e = 0.5 \text{ mW/sr min.} / \lambda_p = 880\text{nm} @ I_F = 20\text{mA}$	3,000 units

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**Revision History**

Description:	Revision #	Revision Date
New Release of QBLP601-IR2	V1.0	03/26/2014

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1. Life support devices or systems are devices or systems which, (a) are intended for surgical implant into the body, or (b) support or sustain life, and (c) whose failure to perform when properly used in accordance with instructions for use provided in the labeling, can be reasonably expected to result in a significant injury of the user.
2. A critical component in any component of a life support device or system whose failure to perform can be reasonably expected to cause the failure of the life support device or system, or to affect its safety or effectiveness.

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